

Figure 1

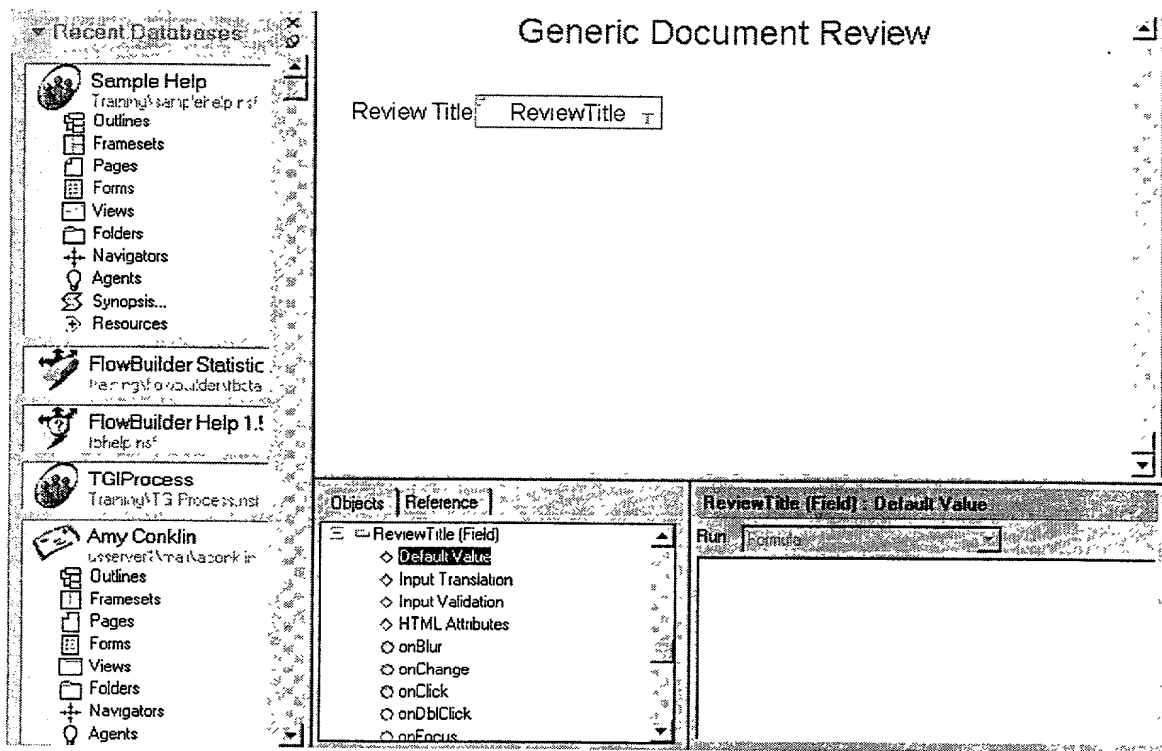


Figure 2

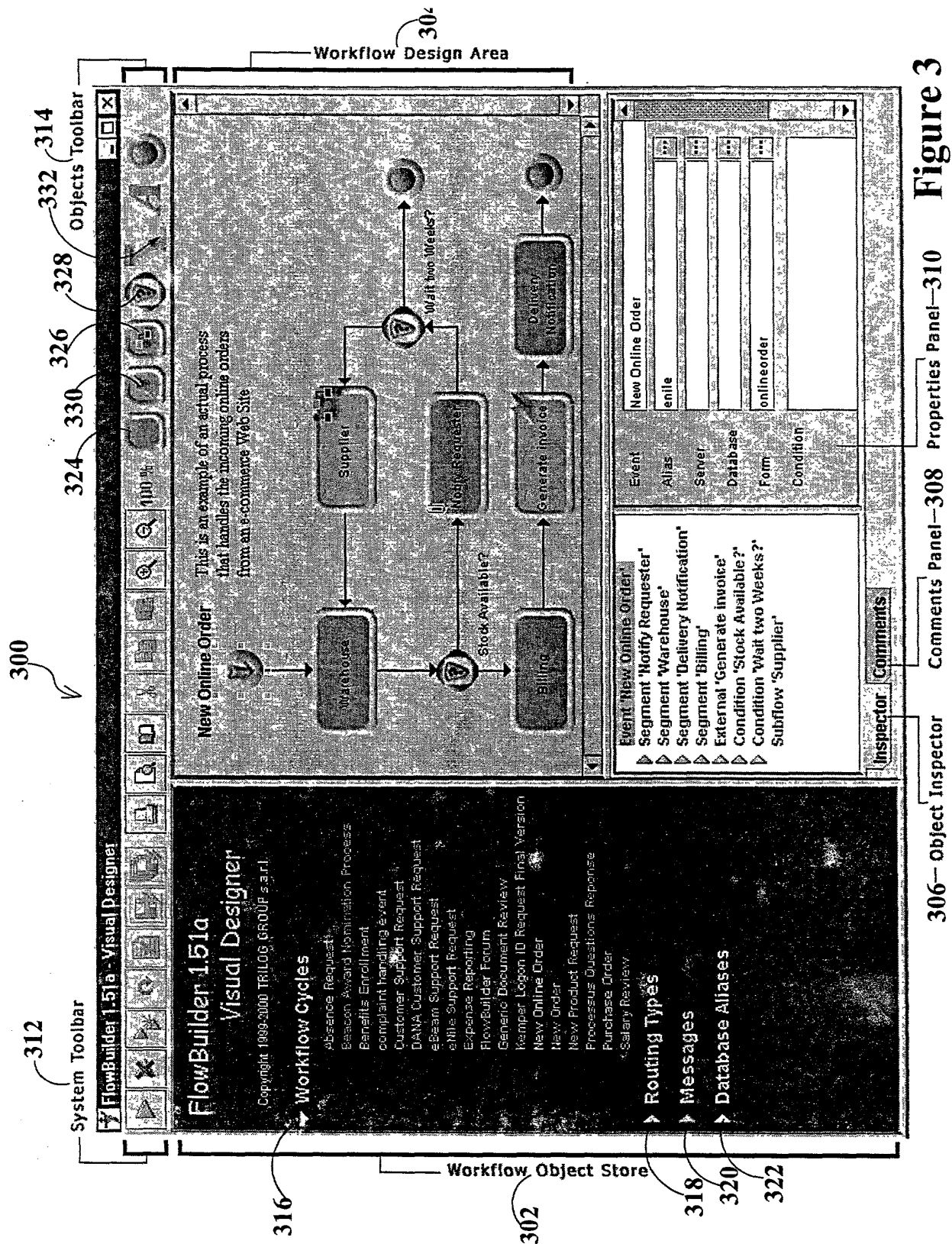


Figure 3

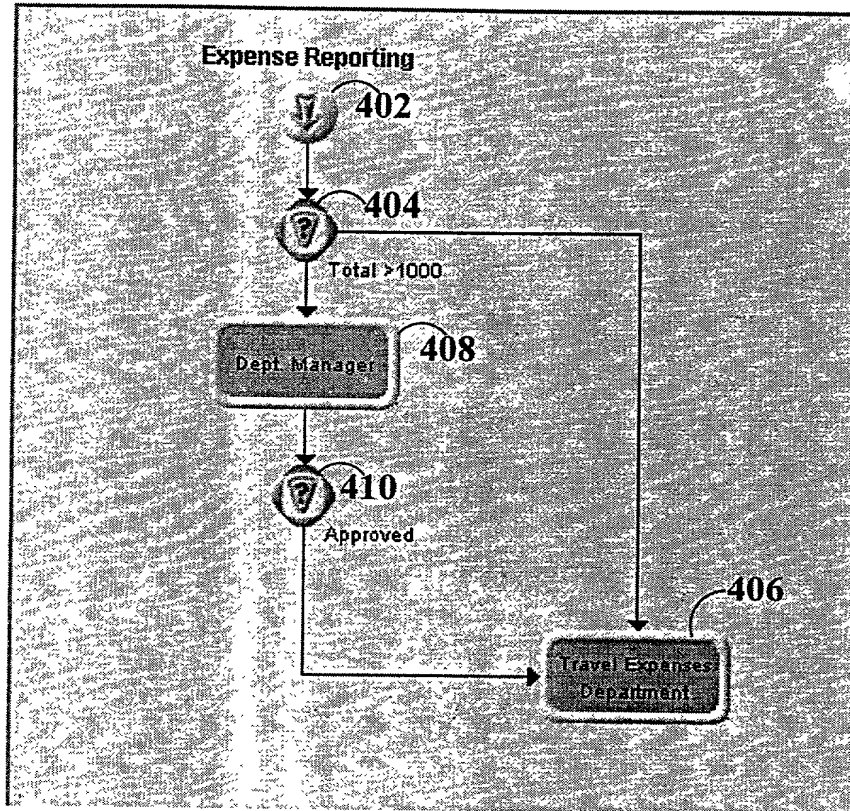


Figure 4

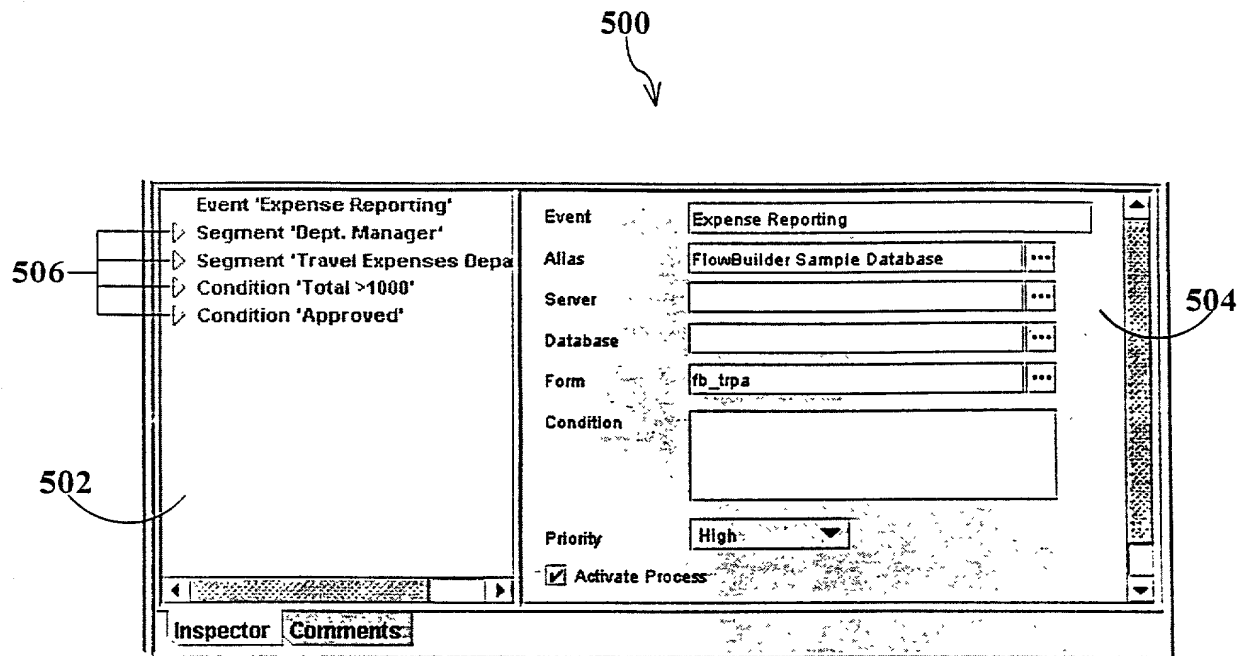


Figure 5

Event 'Absence Request'	
Routing Type	Approval
Sign off is required by	Anybody - 602
	Everybody - 604
	Majority - 606

Figure 6a

<b>Event 'Cycle'</b> ▼ <b>Segment 'Segment1'</b> Routing type Routing rules Routing options Deadline date Deadline handler	<b>Routing Type</b> Sign off is required by <div><div>Approval</div><div>Combined Approval/Edit</div><div>For information</div><div>Review</div><div>Simple Review</div></div>
<b>Inspector</b>	<b>Comments</b>

Figure 6b

**Event 'Expense Reporting'**

- ▼ **Segment 'Dept. Manager'**
  - Routing type
  - Routing rules
  - Routing options
  - Deadline date
  - Deadline handler
- ▶ **Segment 'Travel Expenses Department'**
- ▼ **Condition 'Total >1000'**
  - Previous result
  - Formula
  - On requester
- ▶ **Condition 'Approved'**

**Routing Rules**

Always send to: Department Manager

**Branching Label**

**Formula**

**Simple Roles** Department Manager ...

**Composed Roles**

**Static Users** ...

Add
Change
Delete
Clear

Inspector
Comments

**Figure 7a**



**Event 'Expense Reporting'**

**Segment 'Dept. Manager'**

- Routing type
- Routing rules
- Routing options
- Deadline date
- Deadline handler

**Segment 'Travel Expenses Department'**

**Condition 'Total >1000'**

**Condition 'Approved'**

**Routing Rules**

Always send to: Department Manager

**Branching Label**

**Formula**

**Simple Roles** Department Manager ...

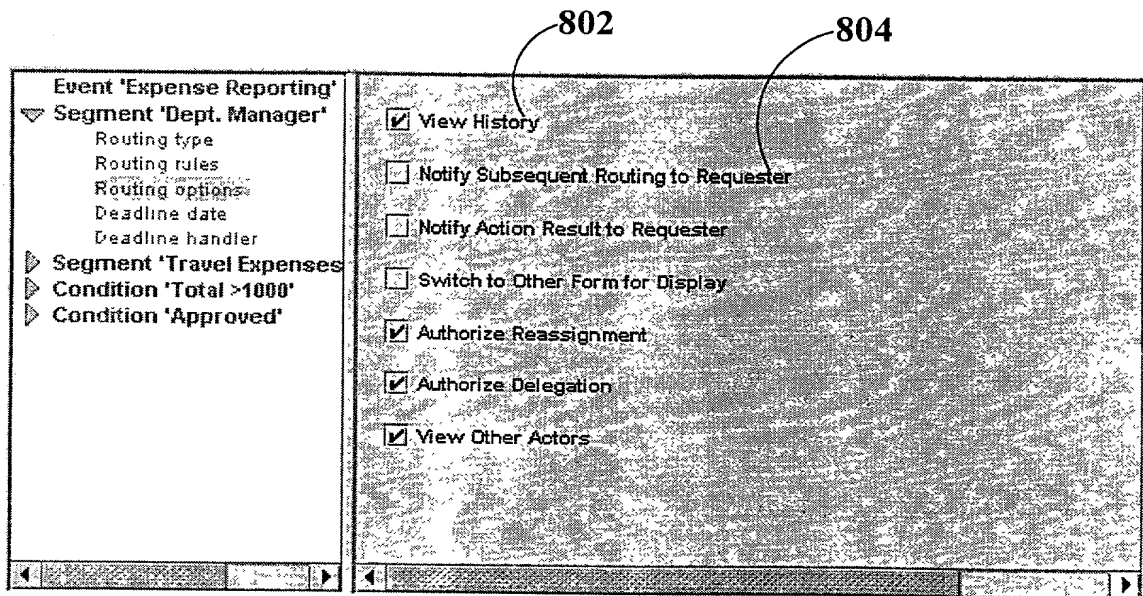
**Composed Roles**

**Static Users** ...

New
Duplicate
Delete

Inspector
Comments

**Figure 7b**



**Figure 8**

902

Event 'Cycle'

External External1

External handler

Segment ID External1

Label

Comment

Link to URL Preview

Inspector

Comments

Figure 9

1002

<b>Event 'Cycle'</b> ▼ <b>External 'External1'</b> External handler	<b>Yield for external processing task</b> <b>No</b> ▼  <b>Alias</b> <input type="text"/> <input type="button" value="..."/> <b>Server</b> <input type="text"/> <input type="button" value="..."/> <b>Database</b> <input type="text"/> <input type="button" value="..."/> <b>Agent</b> <input type="text"/> <input type="button" value="..."/>
<b>Inspector</b>	<b>Comments</b>

Figure 10

Event 'Expense Reporting'

Segment 'Dept. Manager'

Routing type

Routing rules

Routing options

Deadline date

Deadline handler

Segment 'Travel Expenses'

Condition 'Total >1000'

Condition 'Approved'

☒ Set Deadline

1108

Deadline Type

Handling Margin

Handling Margin

User Defined Deadline Date

Days

Time Unit

1104

Handling Margin

0

1106

Inspector

Comments

Figure 11

<div> <div> <div>Event 'Expense Reporting'</div> <div> <div>▼ Segment 'Dept. Manager'</div> <div> <div>Routing type</div> <div>Routing rules</div> <div>Routing options</div> <div>Deadline date</div> <div>Deadline handler</div> </div> </div> <div> <div>▶ Segment 'Travel Expense'</div> <div>▶ Condition 'Total &gt;1000'</div> <div>▶ Condition 'Approved'</div> </div> </div> </div>	<div> <div> <div>1202</div> <div>How should FlowBuilder handle this deadline</div> <div> <div>Send Reminder ▼</div> <div> <div>Time unit</div> <div>Days ▼</div> <div> <div>Start sending reminders</div> <div>2 before deadline</div> <div>Stop sending reminders</div> <div>0 after deadline</div> <div>Repeat interval</div> <div>1</div> <div>Repeat number</div> <div>1</div> </div> </div> </div> <div> <div>Who should FlowBuilder notify if deadline is exceeded</div> <div> <div><input type="checkbox"/> Notify Requester —1204</div> <div><input type="checkbox"/> Notify People —1206</div> </div> </div> <div> <div> <div>1208</div> <div>What should FlowBuilder do if reminder is ignored</div> <div> <div>Abort Cycle ▼</div> <div> <div>Who should FlowBuilder notify if reminder is ignored</div> <div> <div><input type="checkbox"/> Notify Requester</div> <div><input type="checkbox"/> Notify People</div> </div> </div> </div> </div> </div> </div></div>
<div>Inspector</div>	<div>Comments</div>

### Figure 12

Event 'Expense Reporting'

- ▶ Segment 'Dept. Manager'
- ▶ Segment 'Travel Expenses Depa'
- ▶ Condition 'Total >1000'
- ▼ Condition 'Approved'

Previous result:  
Formula  
On requester

Previous result condition: All Succeed

☒ Specified Segments Must Succeed

☒ Specified Segments Can Fail

Inspector Comments

Figure 13

Event 'Expense Reporting'

- ▶ Segment 'Dept. Manager'
- ▶ Segment 'Travel Expenses Depa
- ▶ Condition 'Total >1000'
- ▼ Condition 'Approved'
  - Previous result
  - Formula
  - On requester

Document Formula

Inspector Comments

Figure 14



1502

☒ Set Requester Filter

Requester is assigned the following roles — 1504 Include subtree

☒

Requester is not assigned the following roles — 1506

☒

Requester belongs to the following organizations — 1508

☒

Requester does not belong to the following organizations — 1510

☒

Figure 15

Composed Role	Evaluation Result	Remarks
{"Philip Collins/TRILOG"}	Philip Collins/TRILOG	This is equivalent to choosing a static user from your Name and Address Book.
Line Manager ({ "Philip Collins/TRILOG": "Mary Davis/TRILOG" })	Line Manager of Philip Collins/TRILOG Line Manager of Mary Davis/TRILOG	The Notes formula is evaluated to a user list then the simple role is applied to each user independently.
{@UserName}	The workflow requester	Do not use @UserName in a formula, as the user who launched the FlowBuilder Router is returned.
Secretary({@Subset(\$UpdatedBy;-1)})	The secretary of the user who last updated the document	Only valid if the Form is not marked anonymous.
Line Manager ({FB_Requester})	The Line Manager of the Requester	This syntax is equivalent to Line Manager.
[Project]	The Project field in the document is interpreted as a role. Usually, users will use a dropdown list with the existing projects and have them available as roles in the Planner. If the user selects Project A for instance, MORSE will evaluate the role Project A to determine the recipients.	Square brackets can be used in the same way braces are used. MORSE would simply interpret the result of the formula as roles that yet need to be evaluated to recipients.
Secretary (Accounts Payable({FB_ActionUser}))	The secretary of Accounts Payable of all users who were acting on the document in the previous workflow segment.	Roles at any level may be composed.

**Figure 16**

1702

<b>Event 'Cycle'</b> ▶ <b>External 'External1'</b> <b>Subflow 'Subflow1'</b>	<b>Subflow ID</b>	<input type="text" value="Subflow1"/>
	<b>Label</b>	<input type="text"/>
	<b>Target Cycle</b>	<input type="text" value="1704"/>
	<b>Comment</b>	<input type="text"/>
	<b>Link to URL</b>	<input type="text"/> <input type="button" value="Preview"/>

Inspector   Comments

Figure 17


1802

## Routing Type

Routing Type	Combined Approval/Edit
Notification Message	Default Approval Notification
Routing Category	Activity required
Activity Label	
Activity Description	<p>You are required to Approve or Deny this request.</p> <p>You are allowed to update the following information if needed.</p>
Document Access	Editor
<b>Activity Status Labels</b>	
Pending Status	Pending
Success Status	Approved
Failure Status(optional)	Denied
<b>Activity Result Notification</b>	
Success Message	Successful Approval Message
Failure Message	Denial Message

Figure 18a

1804

**Routing Type** 

Routing Type	Simple Review
Notification Message	Default Review Notification ▼
Routing Category	Purely informational ▼

**Figure 18b**

1806

## Routing Type

Routing Type	Approval
Notification Message	Default Approval Notification ▼
Routing Category	Activity required ▼
Activity Label	
Activity Description	You are required to Approve or Reject the above request
Document Access	Read only ▼
<b>Activity Status Labels</b>	
Pending Status	Pending
Success Status	Approved
Failure Status (optional)	Rejected
<b>Activity Result Notification</b>	
Success Message	Successful Approval Message ▼
Failure Message	Denial Message ▼

**Figure 18c**

1808

## Routing Type

Routing Type	For information
Notification Message	Generic Information Message ▼
Routing Category	Purely Informational ▼

**Figure 18d**

1810

## Routing Type


Routing Type	Review
Notification Message	Default Review Notification
Routing Category	Activity required
Activity Label	
Activity Description	Please acknowledge that you reviewed this document
Document Access	Editor
<b>Activity Status Labels</b>	
Pending Status	Pending
Success Status	Reviewed OK
Failure Status (optional)	Back for changes
<b>Activity Result Notification</b>	
Success Message	Successful Review Message
Failure Message	Denial Review Message

Figure 18e



Figure 19a

## Notification Message



Message Id	Default Approval Notification
Message description	This is the default message associated with all approval actions unless overridden in a workflow segment route description
Subject	{FB_Event} from {@Name([CN];FB_Requester)}: Approval Required
Body	Please approve the following document requested by {@Name([Abbreviate];FB_Requester)}:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink


Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB\_Event}:Approval Required  
Request submitted by {@Name([CN];FB\_Requester)} on {@Date(FB\_RequestTime)}

# Figure 19b



## Notification Message

Message Id

Default Review Notification

Message description

This is the default message associated with all review actions unless overridden in a workflow segment route description

Subject

{FB\_Event}; Review requested by {@Name({CN};FB\_Request)}

Body

Please review the following document requested by {@Name({Abbreviate};FB\_Request)}:

Options

☒ Append URL
 ☒ Keep URL Parameters
 ☒ Append Doolink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB\_Event}; Approval Required Request submitted by {@Name({CN};FB\_Request)} on {@Date(FB\_RequestTime)}

Figure 19c

## Notification Message

Message Id	Denial Message
Message description	Denial Message
Subject	{FB_Event}: Your request has been denied.
Body	The request you have submitted has been denied:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula adding on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB\_Event}: Approval Required  
Request submitted by: {@Name(CN):FB\_Requester} on: {@Date(FB\_RequestTime)}



Figure 19d

# Notification Message

Message Id

Denial Review Message

Message description

Denial Review Message

Subject

{FB\_Event}; Reviewer denied.

Body

Reviewer had several remarks on the document submitted on {@Text(FB\_RequestTime)}. See comments:

Options

☒ Append URL

☒ Keep URL Parameters

☒ Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.


Example:

{FB\_Event}; Approval Required

Request submitted by {@Name(CN):FB\_Requester} on {@Date(FB\_RequestTime)}

# Figure 19e

## Notification Message



Message Id	Generic Information Message
Message description	Generic Notification (purely informational)
Subject	Notification about {FB_Event}; Document submitted by {@Name([CN];FB_Requester)}.
Body	Document submitted by {@Name([CN];FB_Requester)} on {@Text(FB_RequestTime)}.
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context-sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FloodBuilder Router will evaluate all formulas at run time. The following example uses FloodBuilder technical fields from the Workflow Subform.

Example:

{FB\_Event}; Approval Required  
 Request submitted by {@Name([CN];FB\_Requester)} on {@Date(FB\_RequestTime)}

Figure 19f

## Notification Message

Message Id	Simple Review Completion
Message description	Simple Review Completion Message
Subject	{FB_Event}; Reviewer has reviewed the document.
Body	The document you submitted on {@Text(FB_RequestTime)} has been reviewed. See comments:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces.  
The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB\_Event}; Approval Required  
Request submitted by {@Name(CN;FB\_Reqester)} on {@Date(FB\_RequestTime)}



Figure 19g

## Notification Message

Message Id	Stanes Special
Message description	
Subject	This the special message for you
Body	You do not need to worry about this but it will cost you a lot of money
Options	<input checked="" type="checkbox"/> Append URL <input type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages:


In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB\_Event}; Approval Required  
Request submitted by {@Name(CN);FB\_Requested} on {@Date(FB\_RequestTime)}

Figure 19h

## Notification Message



Message Id	Successful Approval Message
Message description	Successful Approval Message
Subject	{FB_Event}: Your request has been approved.
Body	The request you submitted on {@Text(FB_RequestTime)} has been approved.
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages

In both Subject and Body, you can include the text of any NotesFormula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example

{FB\_Event}: Approval Required  
 Request submitted by {@Name(CN:FB\_Requester)} on {@Date(FB\_RequestTime)}



Figure 19i

## Notification Message

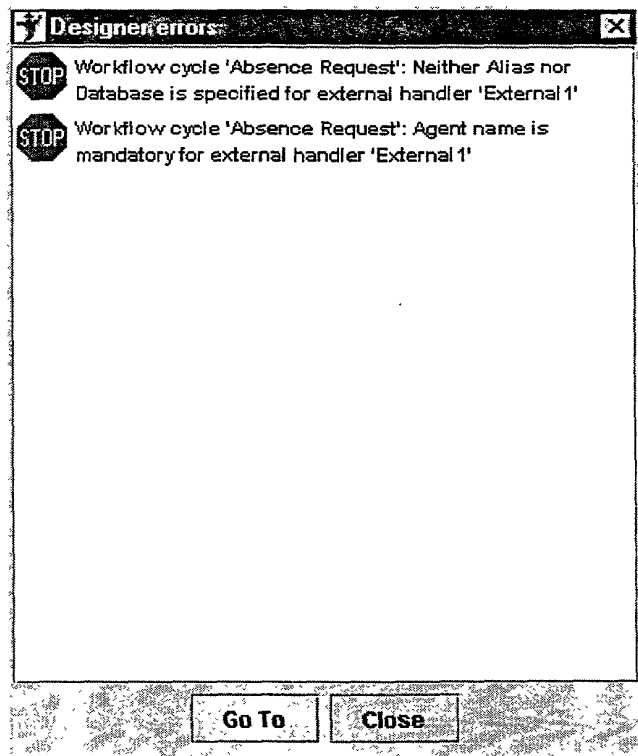
Message Id	Successful Review Message
Message description	Successful Review Message
Subject	{FB_Event}: Review completed successfully.
Body	The document you submitted on {@Text(FB_RequestTime)} has been reviewed and approved.
Options	<input checked="" type="checkbox"/> Append URL <input type="checkbox"/> Keep URL Parameters <input type="checkbox"/> Append DocLink

Building context sensitive messages

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB\_Event}: Approval Required  
Request submitted by {@Name(CN):FB\_Requester} on {@Date(FB\_RequestTime)}



**Figure 20**

FlowBuilder: Statistics		Requester	Event	Created	Last processed	Current Status
<b>Workflow Requests</b> <a href="#">All By Date and Event</a> <a href="#">All By Requester</a> <a href="#">Pending By Date and Event</a> <a href="#">Processed By Date</a>  <b>Performance Indicators</b> <a href="#">Average Processing Time</a> <a href="#">Daily Load Per User</a> <a href="#">Global Load Per User</a>	1	▼ Mary Davis/TRILOG	Expense Reporting	09/09/2000 04:39:43 PM		⚙ Pending Approval
	4	▼ Philip Collins/TRILOG	Absence Request	09/09/2000 04:48:04 PM		⚙ Pending Approval
			Salary Review	09/09/2000 04:26:45 PM	09/09/2000 04:29:15 PM	✗ Back for changes
			Absence Request	09/09/2000 04:24:29 PM	09/09/2000 04:28:39 PM	✓ Approved
			Absence Request	09/09/2000 08:39:48 AM	09/09/2000 04:42:43 PM	✓ Approved
	1	▼ Sam Moneyperny/TRILOG	Expense Reporting	09/09/2000 04:44:20 PM		⚙ Pending Approval
	1	▼ Ulrich Finger/TRILOG	Absence Request	09/09/2000 04:49:40 PM		⚙ Pending Approval
	7					

Figure 21

## Event Log



### Workflow History

### Actual Document

9/9/00 4:48:18 PM New Event 'Absence Request' detected: Workflow Cycle initiated on form 'Absence Request'.

9/9/00 4:48:18 PM Requester = Philip Collins/TRILOG

9/9/00 4:48:18 PM Absence Request: Executing Workflow Segment --> Line Manager Approval

9/9/00 4:48:18 PM Notification sent to the following recipients:

Mary Davis/TRILOG - Role : Line Manager

9/9/00 4:48:18 PM Number of people required for success = 1

9/9/00 4:48:18 PM User(s): Mary Davis/TRILOG

Notified about : Absence Request from Philip Collins: Approval Required

Figure 22

Reassign Task

**Reassign Task**

**Server:** Training/TRILOG  
**Database:** flowbuilder\fcsample.nsf  
**Process:** Absence Request

**Current Activity Participants**      **Reassign To**

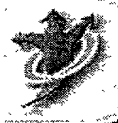
Mary Davis/TRILOG      Sam Moneypenny/TRILOG

Reassign

OK

Figure 23

## Event Log



### Workflow History

### Actual Document



9/9/00 4:48:18 PM New Event 'Absence Request' detected: Workflow Cycle initiated on form 'Absence Request'.

9/9/00 4:48:18 PM Requester = Philip Collins/TRILOG

9/9/00 4:48:18 PM Absence Request: Executing Workflow Segment --> Line Manager Approval

9/9/00 4:48:18 PM Notification sent to the following recipients:

Mary Davis/TRILOG - Role : Line Manager

9/9/00 4:48:18 PM Number of people required for success = 1

9/9/00 4:48:18 PM User(s): Mary Davis/TRILOG




Notified about : Absence Request from Philip Collins: Approval Required


9/9/00 9:18:49 PM Action Approval reassigned by Mary Davis/TRILOG to Sam Moneypenny/TRILOG

9/9/00 9:18:49 PM User(s): Sam Moneypenny/TRILOG

Notified about : Absence Request from Philip Collins: Approval Required

**Figure 24**


Address  http://localhost/fbmanager.html  Go  Links

**FlowBuilder  
Servlet Manager**

Enter Password

Change Password

Confirm



[Stop Service](#)

[Set High Priority](#)

[Set Normal Priority](#)

[Set Low Priority](#)

[Set Deadline Frequency](#)

### FlowBuilder Router Information


Service Database	High Priority	Normal Priority	Low Priority	Deadline Manager
 flowbuilder/fbadmin.nsf	15	60	300	600

Figure 25